

FIG. 1A - Prior Art

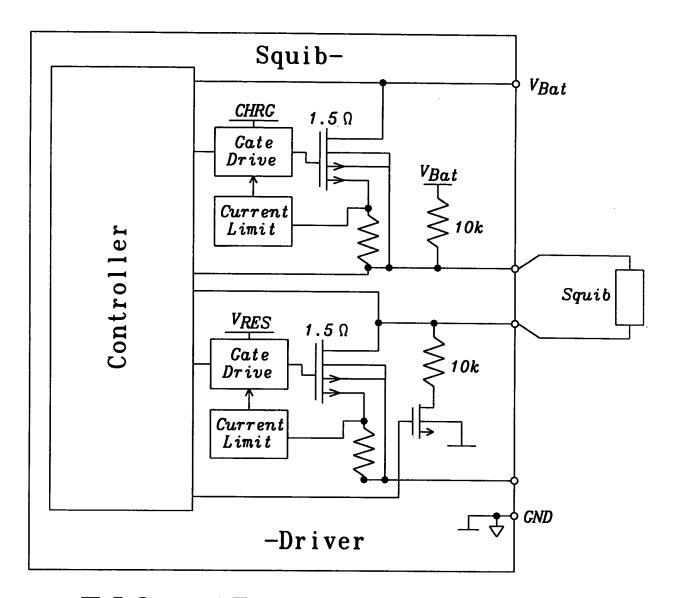
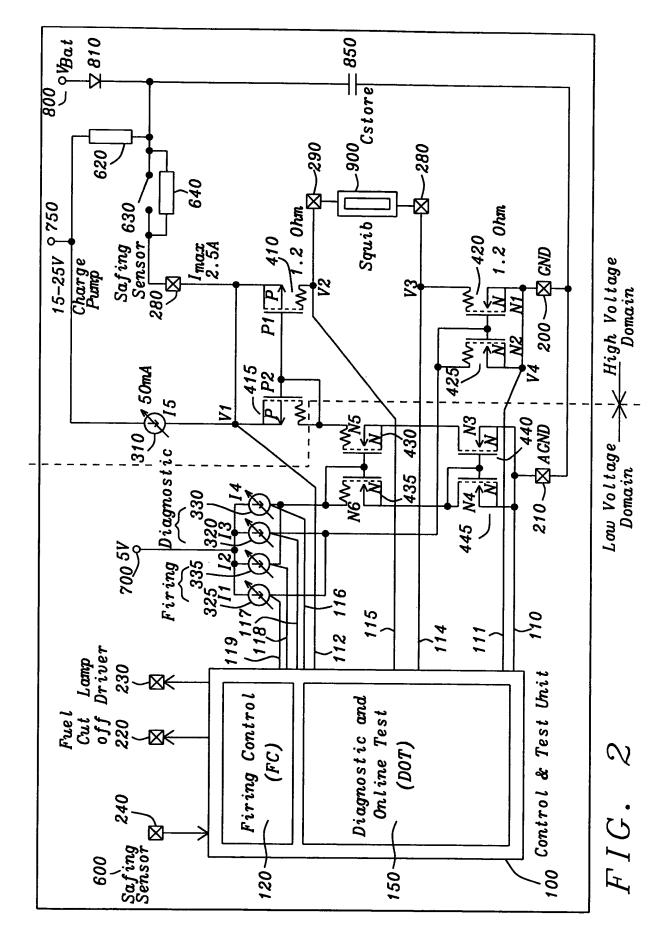


FIG. 1B - Prior Art



Provide a means for a Control and Test Unit for a Squib Driver circuit, containing a Firing Control (FC) unit and a Diagnostic and Online Test (DOT) unit with input and output connections for - interalia - an electrical Safing Sensor, a Fuel Cut-Off During Collision operation and a Diagnostic Lamp Driver signal, and further additionally containing measuring or sensing input signals and control output signals
Provide for said Smith Driver singuit many
Provide for said Squib Driver circuit means for connecting an external main power supply via a mechanical Safing Sensor and means for connecting to ground
Provide for said Squib Driver circuit external means for said power supply using a single charge pump circuit for storing said main supply energy within an external storage capacitor as AVS voltage
Provide for said Squib Driver circuit connection means for connecting an external igniter device or squib to a first connection pin named high-side connection and to a second connection pin named low-side connection
Provide a first internal means for switching operations of said external igniter device or squib on its high-side connection point, named high-side switching device
Provide a second internal means for switching operations of said external igniter device or squib on its low-side connection point, named low-side switching device
(A)

(A) FIG. 3A

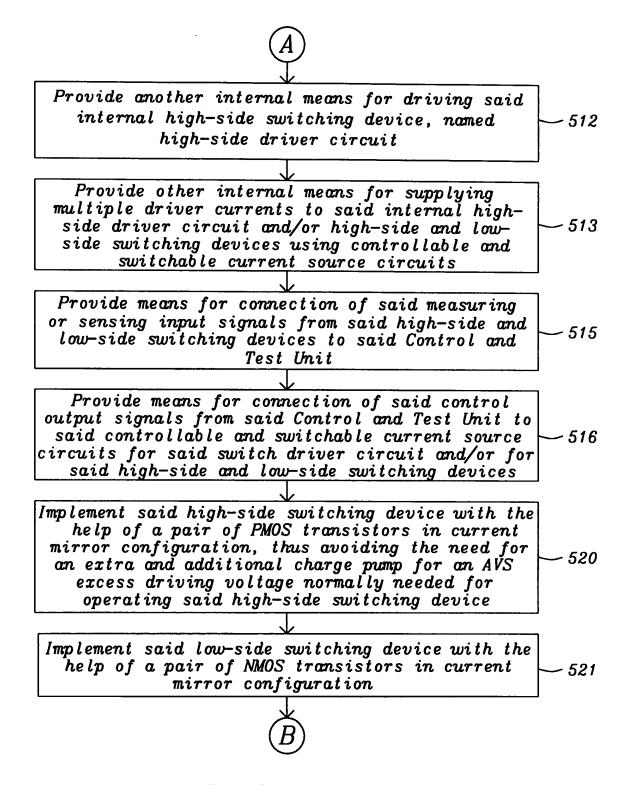
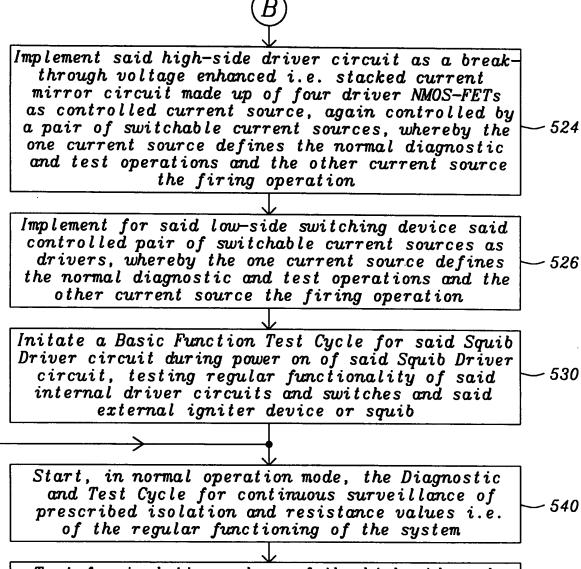


FIG. 3B



Test for isolation values of the high-side and low-side switching devices versus supply voltage and ground

- 542

Measure appropriate test voltages at the squib and said high-side and low-side switching devices in the switched squib branch with the help of given diagnostic currents

- 544

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FIG. 3C

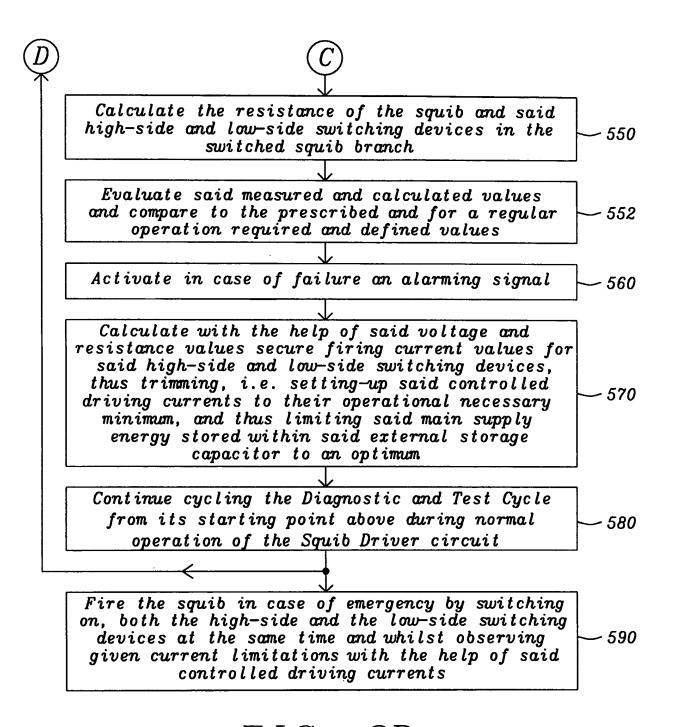


FIG. 3D